OVERFLOW 2 Training Class

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Synopsis: The objective of this class is to provide the CFD practitioner with a working knowledge of the models and methods available in the OVERFLOW 2 overset structured grid Navier-Stokes code. Both the flow solver and the moving grid methods contained in OVERFLOW 2 will be discussed. Emphasis will be placed on the "best practices" for use with each of the areas discussed. The OVERFLOW 2 software is ITAR restricted. The code is freely available to the U. S government and industry and is distributed by NASA.

1. Introduction and history of the code
2. Solver Options
    a. RHS options
    b. LHS options
    c. Preconditioning
    d. Newton and dual time stepping
    e. Multigrid
    f. Grid sequencing (full multigrid)
    g. Boundary conditions
3. Turbulence models
4. Species equations
5. Cartesian grids
6. Moving body
    a. DCF
    b. 6dof
    c. Motion files
    d. Collision
7. Compiling and running
    a. Machine types
    b. Namelist input files
    c. Input and output files
8. Utility codes
9. Test cases
10. Common mistakes
11. Future direction - class feedback

Total class time will be 8 hours divided into morning and afternoon sessions with an hour break for lunch.